

*Adopted Jun 30-2010
TCEQ*

§§307.1 - 307.10

STATUTORY AUTHORITY

These amendments are adopted under the Texas Water Code, §26.023, that provides the Texas Commission on Environmental Quality with the authority to make rules setting Texas Surface Water Quality Standards (TSWQS) for all waters in the state. These amendments are also being adopted under Texas Water Code, §5.103, that authorizes the commission to adopt any rules necessary to carry out its powers and duties under the Texas Water Code and other laws of this state. The adopted amendments will satisfy the provision in Federal Clean Water Act, §303(c) that requires states to adopt water quality standards and to review and revise standards from time to time, but at least once each three year period. The revisions to the TSWQS are adopted to incorporate new information and studies on the appropriate uses and criteria of individual water bodies, to incorporate new scientific data on the effects of specific chemicals and pollutants, and to address new provisions in the Texas Water Code, federal regulations, and guidance of the EPA.

These amendments implement the Texas Water Code, §§5.103, 26.003, 26.023, and 26.026 in addition to Federal Clean Water Act, §303(c). No other codes or statutes will be affected by this adoption.

§307.1. General Policy Statement.

It is the policy of this state and the purpose of this chapter to maintain the quality of water in the state consistent with public health and enjoyment, propagation and protection of terrestrial and aquatic life, operation of existing industries, and taking into consideration economic development of the state; to

(G) bioavailability of specific toxic substances of concern, as determined by WER tests or other analyses approved by the commission; and

(H) new information concerning the toxicity of a particular substance.

(d) Specific numerical human health criteria.

(1) Numerical human health criteria are established in Table 2 of this paragraph.

Figure: 30 TAC §307.6(d)(1)

TABLE 2
 Criteria in Water for Specific Toxic Materials
 HUMAN HEALTH PROTECTION
 (All values are listed or calculated in micrograms per liter unless otherwise noted)

COMPOUND	CASRN	A	B
		Water and Fish µg/L	Fish Only µg/L
Acrylonitrile	107-13-1	0.80	3.8
Aldrin	309-00-2	0.00094	0.0010
Anthracene	120-12-7	5,569	--
Antimony	7440-36-0	6*	1,071
Arsenic (d)	7440-38-2	10*	---
Barium (d)	7440-39-3	2,000*	---
Benzene	71-43-2	5*	513
Benzidine	92-87-5	0.00086	0.0020

Benzo(a)anthracene	56-55-3	0.068	0.33
Benzo(a)pyrene	50-32-8	0.068	0.33
Bis(chloromethyl)ether	542-88-1	0.0024	0.44
Bis(2-chloroethyl)ether	111-44-4	0.3	5.27
Bis(2-ethylhexyl)phthalate	117-81-7	6*	41
Bromodichloromethane	75-27-4	10.2	322
Bromoform	75-25-2	69.1	2,175
Cadmium (d)	7440-43-9	5*	---
Carbon Tetrachloride	56-23-5	4.1	29
Chlordane	12789-03-6	0.0080	0.0081
Chlorobenzene	108-90-7	100*	5,201
Chlorodibromomethane	124-48-1	7.6	239
Chloroform	67-66-3	70*	7,143
Chromium (Hex) (d)	18540-29-9	62	502
Chrysene	218-01-9	68.13	327
Cresols	1319-77-3§	736	1,981
Cyanide (free)#	57-12-5	200*	---
4,4' - DDD ‡, ††	72-54-8	166.16 ug/kg	166.16 ug/kg
4,4' - DDE ‡, ††	72-55-9	214.4 ug/kg	214.4 ug/kg
4,4' - DDT ‡, ††	50-29-3	209.04 ug/kg	209.04 ug/kg
2,4 - D	94-75-7	70*	---
Danitol	39515-41-8	5.39	5.44
1,2 - Dibromoethane	106-93-4	0.16	2.13
<i>m</i> -Dichlorobenzene	541-73-1	473	1,445
<i>o</i> -Dichlorobenzene	95-50-1	600*	4,336
<i>p</i> -Dichlorobenzene	106-46-7	75*	---
3,3'-Dichlorobenzidine	91-94-1	0.32	0.44
1,2 - Dichloroethane	107-06-2	5*	553
1,1 - Dichloroethylene	75-35-4	7*	23,916
Dichloromethane	75-09-2	5*	5,926
1,2-Dichloropropane	78-87-5	5*	226
1,3 - Dichloropropene	542-75-6	3.4	211
Dicofol	115-32-2	0.076	0.076
Dieldrin†	60-57-1	0.0005	0.0005
2,4-Dimethylphenol	105-67-9	257	571
Di- <i>n</i> -Butyl Phthalate	84-74-2	1,318	3,010
Dioxins/Furans +, †† (TCDD Equivalents)	1746-01-6	4.0E-04 ug/kg	4.0E-04 ug/kg
		Toxic Equivalency Factors	
Congener/Isomer			
2,3,7,8 TCDD		1	
1,2,3,7,8 PeCDD		1	
2,3,7,8 HxCDDs		0.1	
1,2,3,4,6,7,8 HpCDD		0.01	

2,3,7,8 TCDF	0.1		
1,2,3,7,8 PeCDF	0.03		
2,3,4,7,8 PeCDF	0.3		
2,3,7,8 HxCDFs	0.1		
2,3,4,7,8 HpCDFs	0.01		
OCDD	0.0003		
OCDF	0.0003		
PCB 77	0.0001		
PCB 81	0.0003		
PCB 126	0.1		
PCB 169	0.03		
Endrin	72-20-8	0.20	0.20
Ethylbenzene	100-41-4	700*	7,143
Fluoride	16984-48-8	4,000*	---
Heptachlor	76-44-8	0.0015	0.0015
Heptachlor Epoxide	1024-57-3	0.00074	0.00075
Hexachlorobenzene	118-74-1	0.0044	0.0045
Hexachlorobutadiene	87-68-3	6.5	274
Hexachlorocyclohexane (<i>alpha</i>)	319-84-6	0.050	0.093
Hexachlorocyclohexane (<i>beta</i>)	319-85-7	0.17	0.33
Hexachlorocyclohexane (<i>gamma</i>) (Lindane)	58-89-9	0.2*	6.2
Hexachlorocyclopentadiene	77-47-4	50*	--
Hexachloroethane	67-72-1	27	62
Hexachlorophene	70-30-4	0.0080	0.0080
Lead (d)	7439-92-1	1.15	3.83
Mercury †, ††	7439-97-6	700 ug/kg	700 ug/kg
Methoxychlor	72-43-5	0.33	0.33
Methyl Ethyl Ketone	78-93-3	13,932	1.50E+6
Nickel (d)	7440-02-0	332	1140
Nitrate-Nitrogen as total Nitrogen	14797-55-8	10,000*	---
Nitrobenzene	98-95-3	11	463
N-Nitrosodiethylamine	55-18-5	0.0037	2.1
N-Nitroso-di-n-Butylamine	924-16-3	0.119	4.2
Pentachlorobenzene	608-93-5	1.0	1.0
Pentachlorophenol	87-86-5	1.0*	57
Polychlorinated Biphenyls (PCBs) ±, **, ††	1336-36-3	19.96 ug/kg	19.96 ug/kg
Pyridine	110-86-1	23	2,014
Selenium	7782-49-2	50*	---
1,2,4,5 - Tetrachlorobenzene	95-94-3	0.65	0.71
1,1,2,2-Tetrachloroethane	79-34-5	3.2	76
Tetrachloroethylene	127-18-4	5*	49
Thallium	7440-28-0	0.75	1.50
Toluene	108-88-3	1,000*	---

Toxaphene	8001-35-2	0.0053	0.0053
2,4,5 - TP (Silvex)	93-72-1	7.3	7.6
1,1,1 - Trichloroethane	71-55-6	200*	956,663
1,1,2-Trichloroethane	79-00-5	5*	295
Trichloroethylene	79-01-6	5*	649
2,4,5 - Trichlorophenol	95-95-4	1,194	2,435
TTHM (Sum of total trihalomethanes)		80	---
bromodichloromethane	75-27-4		
dibromochloromethane	124-48-1		
tribromomethane (bromoform)	75-25-2		
trichloromethane (chloroform)	67-66-3		
Vinyl Chloride	75-01-4	0.25	24

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- * Based on Maximum Contaminant Levels (MCLs) specified in 30 TAC §290 (relating to Public Drinking Water).
- † An assumed BCF of 33,000 is used to translate the tissue-based criterion to a water column criterion for the purposes of evaluating TPDES permittees. The criterion to protect combined water and fish consumption can not exceed drinking water MCL of 2 µg/L. BCF value taken from *Water Quality Criteria for the Protection of Human Health: Methylmercury*; January 2001; EPA 823-R-01-001.
- § Consists of *m*, *o*, and *p* Cresols. The criteria are the same for all three, and the criteria are applied independently to each form of cresol. CASRNs for cresols are 95-48-7 for *o*-Cresol, 108-39-4 for *m*-Cresol, and 106-44-5 for *p*-Cresol.
- ‡ An assumed BCF of 53,600 is used to translate the tissue-based criterion to a water column criterion for the purposes of evaluating TPDES permittees. BCF value taken from *Ambient Water Quality Criteria for DDT*; October 1980; EPA 440/5-80-038.
- # Compliance is determined using the analytical method for available cyanide
- + An assumed BCF of 5,000 is used to translate the tissue-based criterion to a water column criterion for the purposes of evaluating TPDES permittees. BCF value taken from *Ambient Water Quality Criteria for 2,3,7,8-Tetrachloro-dibenzo-p-dioxin*; February 1984; EPA 440/5-84-007.
- (d) Indicates the criteria is for the dissolved fraction in water. All other criteria are for total recoverable concentrations.
- ± An assumed BCF of 31,200 is used to translate the tissue-based criterion to a water column criterion for the purposes of evaluating TPDES permittees. BCF value taken from *Ambient Water Quality Criteria for Polychlorinated Biphenyls*; October 1980; EPA 440/5-80-068.
- ** Until Method 1668 or equivalent method to measure PCB congeners is approved in 40 Code of Federal Regulations Part 136, compliance with PCB criteria is determined using Arochlor data or any alternate method listed in a TCEQ-approved Quality Assurance Plan.
- †† Based on fish tissue wet weight.

(2) Categories of human health criteria: